

Unit 12

Day 1

Relations and Functions

Section 3.1 of textbook

Relation- is a set of ordered pairs

Domain- is the set of all x-values of a relation  
independent

Range- is the set of all y-values of a relation  
dependent

1) List the ordered pairs of this relation. State the domain and range.

$$m = \{(1, 3), (2, 5), (-2, -1), (0, -1), (2, 3), (4, 6)\}$$

$$D = \{1, 2, -2, 0, 4\}$$

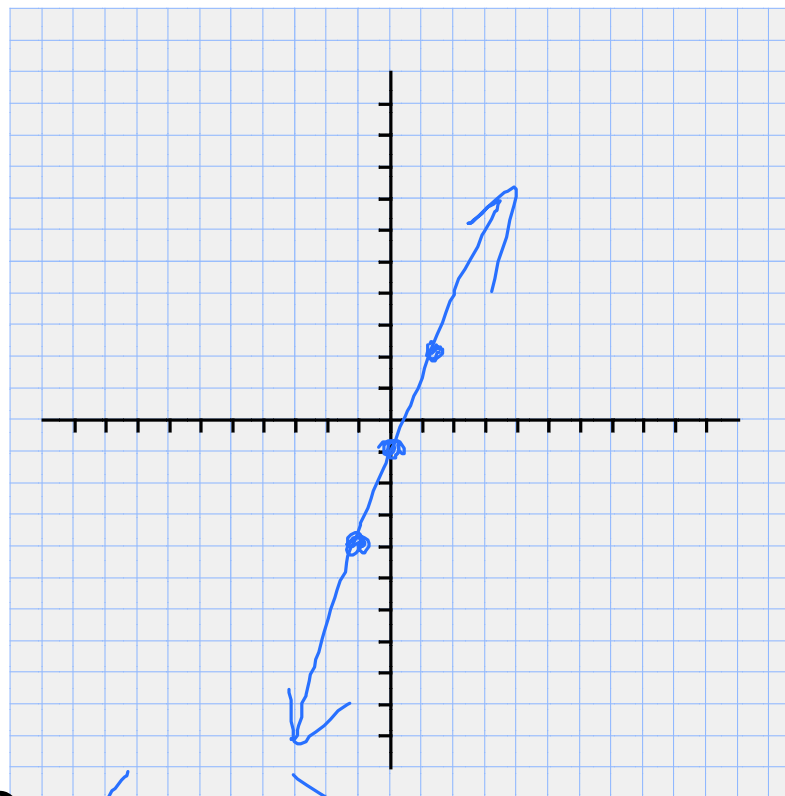
$$R = \{3, 5, -1, 6\}$$

2)

$$y = 3x - 1$$

x	y	
-1	-4	$(-1, -4)$
0	-1	$(0, -1)$
1	2	$(1, 2)$

$$D = (-\infty, \infty)$$



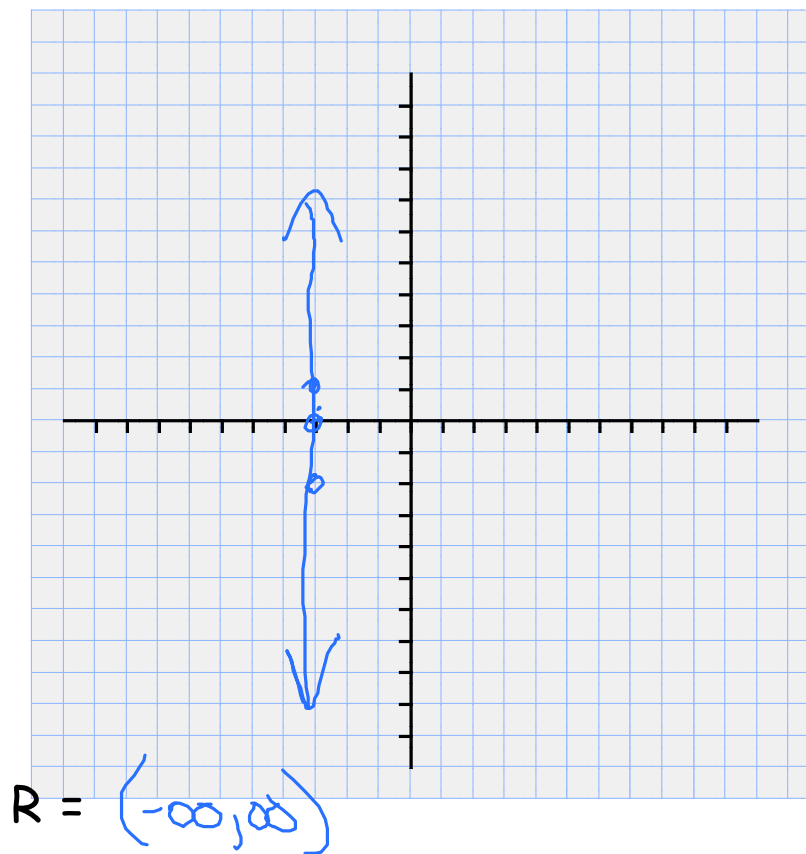
$$R = (-\infty, \infty)$$

3)

$$x = -3$$

x	y
-3	1
-3	0
-3	-1

$$D = \{-3\}$$



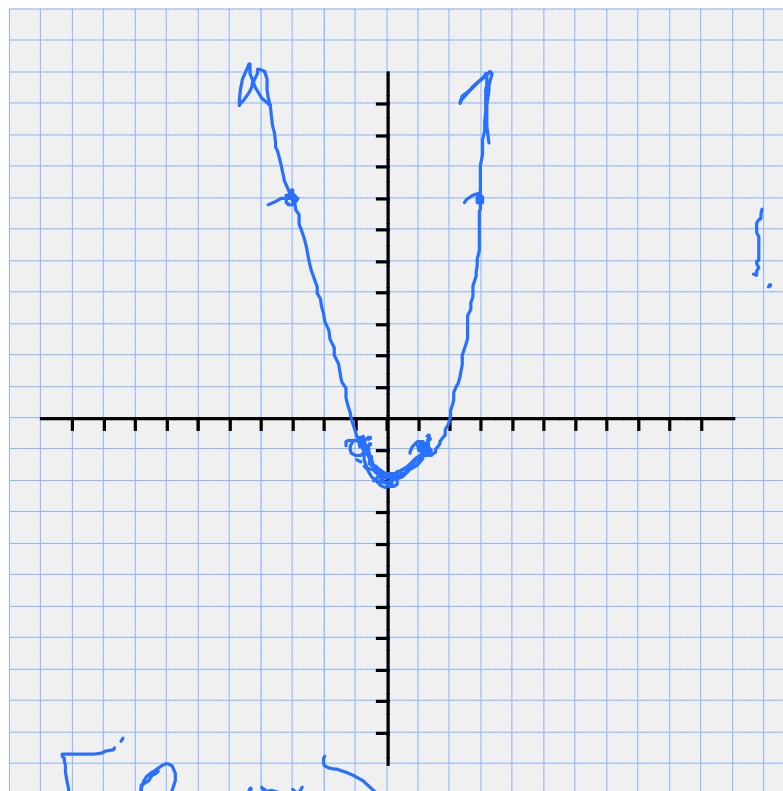
4)

$$y = x^2 - 2$$

x	y
-1	-1
-3	7
0	-2
3	7
1	-1

$$D = (-\infty, \infty)$$

$$R = [-2, \infty)$$



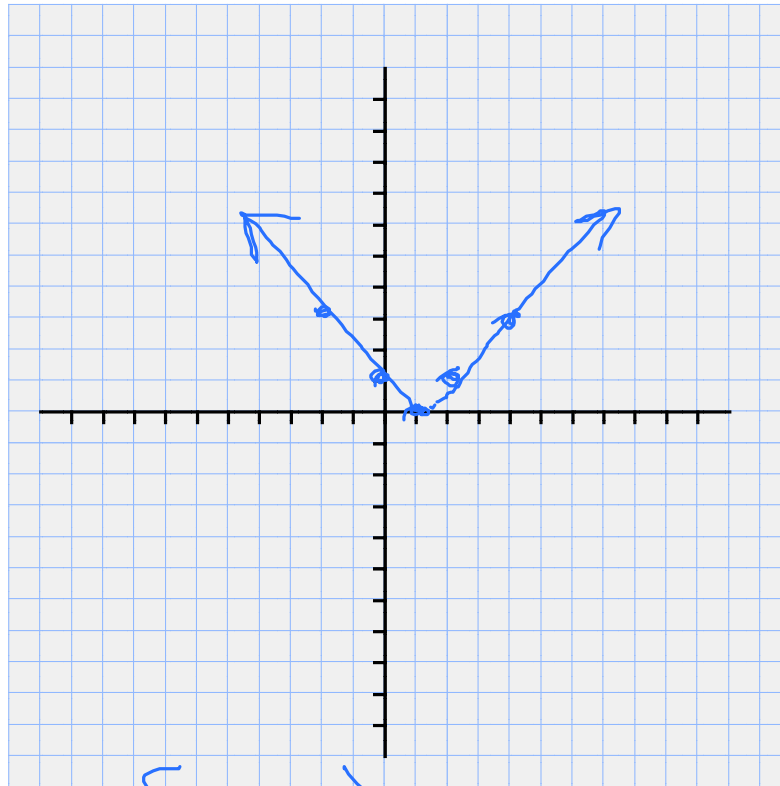
5)

$$y = |x - 1|$$

x	0	2	1	4	-2
y	1	1	0	3	3

$$D = (-\infty, \infty)$$

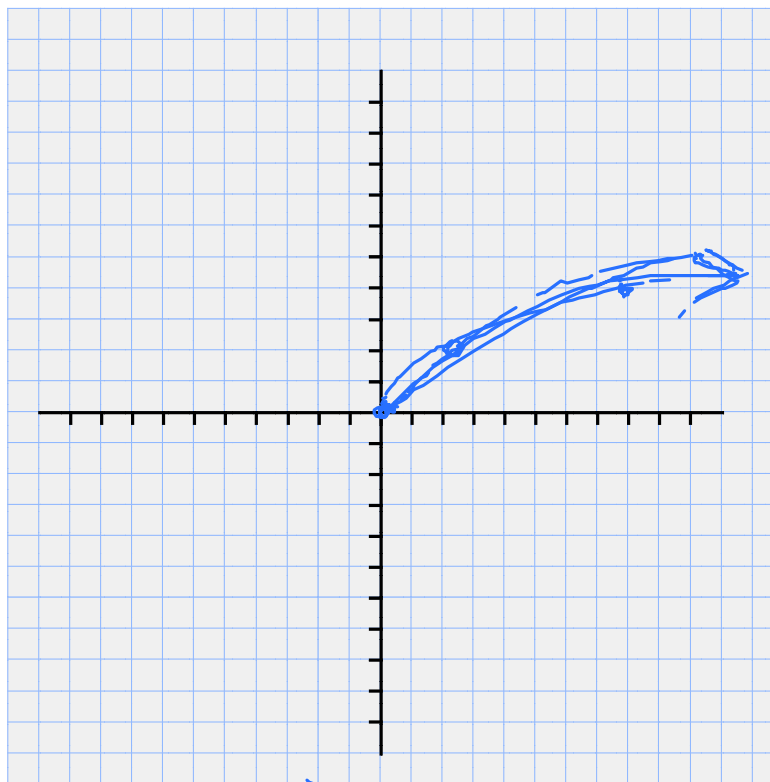
$$R = [0, \infty)$$



6)

$$y = \sqrt{2x}$$

x	1	2	8	0
y	$\sqrt{2}$	2	4	0



$$D = [0, \infty)$$

$$R = [0, \infty)$$

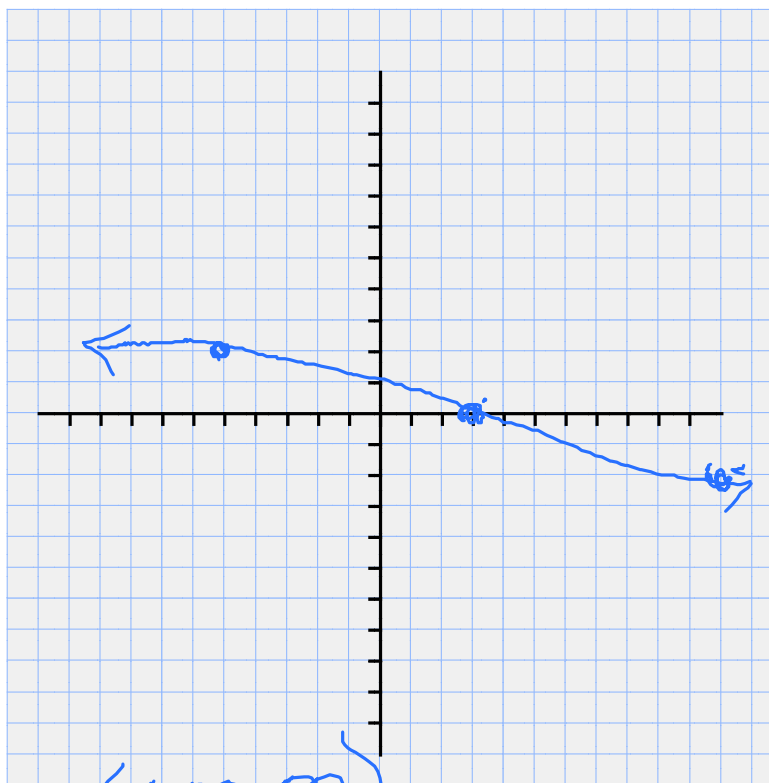


7)

$$y = \sqrt[3]{-x+3}$$

x	y
0	$\sqrt[3]{3}$
11	-2
-5	2
3	0

$$D = (-\infty, \infty)$$



$$R = (-\infty, \infty)$$

Complete *Guess my situation* worksheet as a class.

HOMEWORK:

p 175: 5-12 (all) plus worksheets